



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,585	11/07/2001	Jack Y. Uang	COI 5450	8532
321	7590	10/21/2004	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL			TOOMER, CEPHIA D	
ONE METROPOLITAN SQUARE			ART UNIT	
16TH FLOOR			PAPER NUMBER	
ST LOUIS, MO 63102			1714	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/045,585	UANG ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2-3, 6-10, 13-14, 19-20, 26-27, 34 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2-3, it is not clear if the fatty acid solubilizer of these claims is an additional solubilizer or the solubilizer of claim 1. The language "further comprising" usually indicates an additional component. Clarification and correction are required.

Claim 6 and its dependents are rejected because there is no antecedent support in claim 1 for a mixture of fatty polyamide and ester terminated polyamide.

Claim 13 is rejected because it is not clear how "a monoalcohol fatty acid ester" differs from a "hydrocarbyl fatty acid ester". Also a "sorbitol fatty acid ester" is a "polyol fatty acid ester".

Claim 14 is rejected because propylene fatty acid ester is not a "monoalcohol fatty acid ester."

Claims 19 and 20 are rejected because vegetable oil and castor oil are not hydrocarbon oils.

- Claims 26 and 27 are rejected because there is no antecedent support in claim 24 for "the plasticizers".

Claims 34 and 42 are rejected because they contain the trademark "Uniclear 80".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 13, 17-24 and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller (US 3,645,75).

Miller teaches a transparent combustible candle body material formed by combining a fatty ester, polyamide, mineral oil or natural oil and alcohol (see abstract, claims 1 and 2). The alcohol present in the composition in an amount from 7 to 30% is a C₈-C₁₂ alcohol or a mixture of the alcohol with myristyl alcohol (see col. 2, lines 66-71). The polyamide is present in the composition in an amount from 7-50% polyamide (see col. 2, lines 45-54). The composition may contain up to 15% of a methyl ester such as methyl ricinoleate or methyl oleate. Up to 5% stearic acid is added to the candle composition to cheapen it and conventional additives such as antioxidants,

Art Unit: 1714

clarifies, perfume and color may be added to the composition (see col. 1, lines 53-58; col. 2, lines 72-75; col. 3, lines 1-20, 42-44). The natural oils include castor oil and other vegetable oils (see col. 2, lines 7-22).

Accordingly, Miller teaching all the limitation of the claims anticipates the claims.

6. Claims 1-3, 5, 11-13, 21-24 and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Felton (US 3,615,289).

Felton teaches a candle composition that may be transparent or pastel shaded comprising perfume, 15-35% polyamide, 1-50% a stearic acid and a stearic acid ester and an alkylated aryl polyether alcohol (see abstract; col. 1, lines 15-22; 66-75; col. 2, lines 46-59; Table 3).

Accordingly, Felton teaching all the limitations of the claims anticipates the claims.

7. Claims 1-3, 11, 13-15, 17-21, 23 and 28-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Gunderman (US 3,819,342).

Gunderman teaches a candle composition comprising a polyamide and a flammable solvent for solubilizing the polyamide wherein the solvent is selected from unsaturated fatty acids, unsaturated fatty alcohols, saturated fatty alcohols, esters of fatty acids with polyhydric alcohols and glycerol and mixtures thereof (see abstract).

The composition 5-35 parts by weight polyamide, and 0.5 to parts by weight solvent (see col. 2, lines 35-45). The solvents used in the candle composition include esters of fatty acid with dihydric alcohols (propylene glycol fatty acids) and polyhydric (castor oil-glyceride of ricinoleic acid). See col. 7, lines 4-34.

Art Unit: 1714

Gunderman teaches that conventional additives such as colorants, perfumes, anti-flaring agents (stearic acid) and mineral oil. The anti flaring compounds can be used in an amount from about 15 to 85 parts by weight.

In table 4, Gunderman exemplifies a candle composition comprising the polyamide, oleyl alcohol, castor oil, mineral oil, perfume, fatty ester (Neobee M-20) isostearic acid (see composition C).

Accordingly, Gunderman teaching all the limitations of the claims anticipates the claims.

8. Claims 1-5, 12, 13 and 21-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Spaulding (US 6,054,517).

Spaulding teaches a candle and candle composition comprising 40-80% of a polyamide, one or more solubilizers and one or more emulsifiers (see abstract col. 4, lines 37-40). The solubilizer (10-70%) may be 12-hydroxy-stearic acid ester, castor oil, oleic acid, isostearic acid or isostearyl alcohol (see col. 4, lines 61-67; col. 6, lines 6-11, 38-51). The candle composition also contain 0-7% of an emulsifier such as sorbitan laurate, or sorbitol palmitate. These compounds are ester of a polyhydric alcohol (see col. 6, lines 52-67; col. 7, lines 1-9). Plasticizers such as stearic acid, isopropyl myristate and dioctyl adipate may be in the composition in an amount from 0-10% (see col. 7, lines 10-33). Fragrance is present in an amount from 0-5% and color may also be present in the candle composition (see col. 7, lines 47-61). In Table 1, compositions 7 and 8, Spaulding list all of the components set forth in the present claims.

Accordingly, Spaulding teaching all the limitations of the claims anticipated the claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-24, 28-30, 32-34 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berger (US 6,111,055).

Berger teaches a candle composition comprising 30-60% ester-terminated polyamide, 40-70% solvent, less than 50% fragrance, less than 5% colorant (see col. 24, lines 49-60).

The solvent may be liquid or solid at room temperature and includes fatty acids and fatty alcohols. This teaching suggests isostearic acid and isostearic alcohol. See col. 18, lines 44-49. Also, the solvent may be mineral oil and esters (see col. 18, lines 63-66 and col. 19, lines 41-45). Suitable esters include esters of glycerol castor oil, propylene glycol esters and ethoxylated esters and esters of C₁ – C₂₂ monocarboxylic acids (see col. 19, lines 45-67; col. 20, lines 1-17).

Berger teaches that the candle contains conventional additives such as colorants, perfumers, insect repellants, and antioxidants. See col. 23, lines 22-65. Berger teaches that a fatty acid amide may be used in the invention in particular, Felton (US 3,615,289). Felton teaches a fatty acid polyamide (see col. 24, lines 8-48).

Berger teaches the limitations of the claims other than a candle composition wherein all of the claimed components are present. However, no unobviousness is seen in this difference because Berger teaches each of the components, some of which have dual functions, and he teaches that they may be used in the candle composition.

Berger fails to teach the ratio of ester-terminated polyamide to fatty acid polyamide.

It would have been obvious to one of ordinary skill in the art to have optimized the ratio of these polyamides through routine experimentation for the best results. As to optimization of results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the prima facie case of obviousness. See *In re Boesch*, 205 USPQ 215 (CCPA 1980).

11. Claims 25-27, 31 and 35-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berger further in view of Lin (US 3,898,039).

Berger has been discussed above. Berger fails to teach the addition of a plasticizer. However, Lin teaches this difference.

Lin teaches a candle composition comprising a plasticizer such as di-ethylhexyl phthalate and di-(2-ethylhexyl) adipate (see abstract; col. 5, lines 50-58).

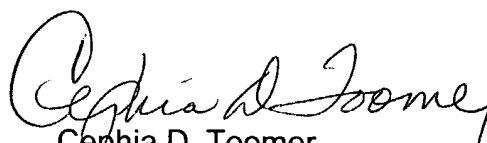
It would have been obvious to one of ordinary skill in the art to have added a plasticizer to the composition in the claimed proportions because Lin teaches that plasticizers improve the mechanical and structural properties of the candle.

Art Unit: 1714

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cephia D. Toomer
Primary Examiner
Art Unit 1714

10045585\092004